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## THE ANNALS OF IRISH ZOOLOGY.

BY THE EDITOR.

CONSIDERING how wide a field of research lies open to the naturalist in Ireland, it is not a little remarkable how much that country in this respect has been neglected. In the case of nearly all the standard and more important works relating to the Zoology of the British Islands, it is apparent that by far the greater portion of the materials utilised in their composition have been collected and arranged from observations made in England. To this statement, no doubt, a few notable exceptions may be made, as in the case of such works as those of Macgillivray, Sir William Jardine, and William Thompson, of Belfast; but the fact remains that, as compared with the voluminous zoological literature relating to England, Irish records in this respect are very scanty. Under the mistaken notion that British Natural History is worked out, many English naturalists, anxious to find some new field for their labours, have travelled in distant lands and spent years in investigating the fauna of countries little known or little explored; until, through the medium of their publications, often splendidly and expensively illustrated, we have come to know more of the characteristic animals of the antipodes than we do of those by which we are, so to say, surrounded. It appears at least singular that a tolerably well-informed zoologist of the present day should experience no difficulty in supplying a list of Australian mammals, or Ceylonese birds, and yet be unable to decide, for instance, whether the Wild Cat, the Weasel, or the Harvest Mouse are

indigenous to Ireland, or how many species of Chiroptera are to be found there; whether the Black Grouse was ever a native of the Emerald Isle, or what is the distribution in that country, say, of the Crayfish. These examples, taken at random, and numerous other cases might be suggested, only serve to show that there are still questions relating to the fauna of Ireland which require investigation, and which it is a reproach to naturalists of the present day to leave unsettled.

When we consider that more than a quarter of a century has elapsed since the publication of what is generally regarded as the standard work on the Natural History of Ireland, it seems high time that steps were taken to furnish a more accurate view of the fauna of that country than is presented to us in the work referred to. Not that we regard Thompson's work as inaccurate in its details, so far as they go,—for it would be difficult to name a more careful or competent observer than he has proved himself to be,—but the researches of other naturalists in Ireland since the date of his publication have brought to light results which necessitate a modification of many of his statements, although the latter, no doubt, were true enough at the time they were made, so far as could be judged from the materials at command. The same may be said of some few writers who preceded Thompson in the same line of research, although the further back we go in the annals of Irish Zoology the more vague and indefinite is the information to be derived. This want of precision on the part of some of the earlier writers on Irish Natural History deprives their works, in a great measure, of that value which would otherwise attach to them. Nevertheless, as illustrating the progress of scientific research in Ireland, such works ought not to be overlooked by naturalists of the present day in any attempt to improve upon the labours of their predecessors.

In view of the foregoing reflections, it may be not altogether unprofitable to enquire who are the writers, either ancient or modern, who have contributed in any way to a knowledge of the fauna of Ireland, and what may be the value of their testimony.

The earliest notice, so far as is known, of the wild animals of Ireland is to be found in a tract, '*De mirabilibus Sacrae Scripturae*,' written by an Irish ecclesiastic, by name Augustine, about the middle of the seventh century. It is very brief, amounting, in fact, to only a few lines, but deserves at least a passing notice,

not only on account of the early date at which it was written, but because it contains a reference to the existence in Ireland of at least two animals which have long been extinct there, namely, the Wolf and the Wild Boar. The passage is as follows:—"Quis enim verbi gratia lupos, cervos, et sylvaticos porcos, et vulpes, taxones, et lepusculos, et sesquirolos in Hiberniam deveneret."

In the '*Topographia Hibernica*' of Giraldus Cambrensis (A. D. 1183-86) we have the earliest work in which there is anything like a detailed account of the fauna of Ireland, and considering the date of its composition and the circumstances under which it was written, it must be allowed to be a highly creditable production. At the same time it must be borne in mind that Giraldus—evidently a very credulous man—wrote down not only what he saw and observed for himself, but what others told him upon mere hearsay report; hence there is much mingling of truth with fiction in his work. Again, his knowledge of the country must have been very limited, extending, it may be assumed, no further than the English occupation then extended, over considerable parts of Leinster and Meath, and small parts of Munster and Ulster.\* Even supposing that he went everywhere where the English had established themselves, still by far the larger part of Ireland was altogether unknown to him, except by vague reports of his English friends or by very doubtful descriptions from the few Irish of the subjugated parts who would still remain on their lands in subjection to the English.

These circumstances, the too great credulity of the writer, and his limited acquaintance with the country through which he travelled, preclude us from attaching too high a value to his remarks on the fauna of Ireland. They are, nevertheless, too important to be overlooked in any memoir of the writers on Irish Natural History. To examine critically all that Giraldus has written on this subject would require a great deal more space than can be here devoted to it. It must suffice if we glance rapidly at some of the more interesting points upon which he has touched.

After some introductory chapters on the situation of Ireland and its physical aspect, the winds and rain with which it is

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\* His first visit to Ireland was in 1183; his second, in company with Prince John, in 1185.

visited, and so forth, we come to its natural productions; and one of the first passages which strikes us (cap. vi.) is a refutation of Bede's statement that the Roe-deer was a native of Ireland.\* Giraldus says this is not the case, and to the present day no traces of this animal have been found there.

Noticing the marine and fresh-water fish (cap. ix., x.) he refers to three kinds not found elsewhere—that is, peculiar to Ireland:—  
 “Sunt enim quidam truttis, quæ et salares [Salmon] dicuntur, longiores et rotundiores, albis carnibus confertis et sapidis; thymallis qui vulgariter umbræ [Grayling, or Umber] dicuntur, persimiles, nisi quod capite degenerant grossiore. Sunt et alii, marino haleci tam forma et quantitate, quam colore et sapore simillimi. Sunt et tertii truttis, nisi quod maculis carent, per omnia similes; primos ‘Glassanos,’ secundos ‘Catos,’ tertius vero ‘Bricios’ vocant.”

He adds that these three kinds were only met with in summer and never in winter; that is, they were migratory.

Passing on to the Birds (cap. ix. to xxiii.) he refers first to the falcons and hawks, for which Ireland in the palmy days of falconry was celebrated, noticing by the way that amongst birds of prey the female is generally larger than the male, and calling attention to the various phases of plumage which the Sparrowhawk undergoes, and to the different mode in which the short-winged hawks and long-winged falcons take their prey, all of which observations are found to be exact at the present day.

A long chapter on the Eagle (cap. xiii.) is followed by one on the Crane (cap. xiv.) a bird which, according to Giraldus, might be seen in large flocks in Ireland in his day. “In tanta vero numerositate se grues ingerunt,” he says, “ut uno in grege centum, et circiter hunc numerum, frequenter invenias.”

He repeats the story which says that the Crane is of so watchful a nature that a sentinel is always posted while the flock is at rest, and that the sentinel stands with a stone in one foot, so that in case he should fall asleep the fall of the stone would rouse him. The ancient legend, too, of the Bernicle Goose and its supposed generation from old sea-timber finds a place (cap. xv.)

\* Bede, it may be observed, was never in Ireland himself, and his brief allusions to the *feræ naturæ* of the country were derived from hearsay. See ‘The Book of Howth,’ Brewer and Bullen, Calendar Carew MSS., p. 32.



amongst the stories collected by the too credulous historian, who in this instance appears to have sought some justification for his belief in the story in consequence of having seen with his own eyes some Barnacles clinging to a beam alongshore!

He describes the flight of the Osprey from his own observation (cap. xvi.), but credits it with some remarkable peculiarities of structure and habit, which shows that he could never have examined a specimen closely. Had he been able to do so, he would not have informed us gravely that this bird has one foot webbed, the other armed with talons, so that it may swim with the one, while it grasps its prey with the other. Some equally wonderful stories are related with regard to the Kingfisher, to which a chapter is devoted.

In the North of Ireland, we are told, wild Swans were common, but Storks very rare, and those black! The song of the dying Swan, as might be supposed, calls forth a passing allusion. The Hooded Crow is noticed as more common in Ireland than its black congener, and its habit of breaking open molluscs by letting them fall from a height in the air is briefly described. The Grey Shrike seems to have been not unknown in Ireland when Giraldus wrote. He refers to its habit of impaling beetles on a thorn.

With regard to species not found in Ireland, Giraldus states that in his day there were no falcons but Peregrines; no Gervilons, which came from northern regions; no Partridges nor Pheasants; and no Magpies. The Nightingale, which he tells us was never seen in Ireland, still remains unknown there.

Amongst the beasts of chase he includes Deer, Wild Boars (which were numerous, though small and ill shaped), Hares, and Martens, the last-named being very common in the woods.

The Badger is particularly noticed on account of a singular habit with which he is credited. According to report, apparently believed by Giraldus, a Badger when about to remove the soil which he has dug out from his burrow, lies on his back, taking as much as he can carry between his legs, and holding a bit of wood in his mouth is by means of it drawn out by his friends!

The Beaver is mentioned only for the purpose of showing that it was unknown in Ireland, though a few were said to be then still existing in Wales and Scotland. Amongst other *feræ naturæ* absent from Ireland, Giraldus includes the Roe-deer, Fallow-deer, Hedgehog, Stoat, and Polecat.

The Roe-deer, we know, was never indigenous to Ireland; the Fallow-deer was introduced. But when? Apparently not before the date of the 'Topographia Hibernica.' Its abundance at a later period we shall have occasion to notice presently.

The Hedgehog in all probability was overlooked by Giraldus, for it is known to be generally distributed throughout Ireland. This is the case also with the Stoat (marked "absent" by Giraldus), though not with the Weasel, which he characterises as numerous: "*Mustelæ hic multæ sed minutæ plurimum et sub-rufæ.*" This is curious, for at the present day it is still doubted by many whether the Weasel is really to be found in Ireland; an impression prevailing amongst naturalists that this name is bestowed upon the Stoat.\*

The absence from Ireland of the Mole, as noted by Giraldus, is confirmed by modern investigations. Mice were said to abound and to do great damage.

It was apparently not enough to assert that no poisonous reptiles existed in Ireland, for Giraldus adds that none such could live there if imported from other countries; and further that the dust of Irish soil, if taken abroad, would be fatal to such reptiles! Frogs were occasionally to be met with, for he saw one which had been found at Waterford in 1179.

Here we must take leave of Giraldus, for at this point in his work he quits the domain of Natural History for the field of marvels and miracles, which, however curious and entertaining, can scarcely be regarded as pertinent to our present purpose.

Ranulph Higden, a Benedictine monk, of St. Werburg's Abbey, in Chester, who died at an advanced age about 1363, compiled a 'Polychronicon,' or Universal History, reaching to his own time, which was one of the most popular histories during the fourteenth and fifteenth centuries, and continued to be much in use during the following century also.

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\* Andrew Murray, in his 'Geographical Distribution of Mammals' (p. 114), says the Weasel *formerly* inhabited Ireland, but is no longer found there. Macgillivray states that it is generally distributed in Ireland, but Thompson says he never met with it there, nor does he consider that it has been proved to be a native, though it may be so. The Stoat, which is called Weasel in Ireland, is common there (Nat. Hist. Irel., vol. iv., pp. 6, 7). For positive evidence, however, of the occurrence of the Weasel in Co. Mayo, cf. Borrer, 'Zoologist,' 1877, p. 291.

In that portion of the work which relates to Ireland (vol. i., chapters xxxii—xxxvi., ed. Babington), the compiler, as might have been expected, has borrowed largely from the work of his predecessor, Giraldus. The nature of the information which he imparts, and which is often very tersely expressed, may be seen from the following extracts. To some readers, possibly, the quaint English translation by John of Trevisa might be more acceptable than the original Latin. But we prefer to quote from the latter, because John of Trevisa is not always literal in his translation, and in cases where he has evidently failed to identify an animal by its Latin name he has preferred to omit all mention of it rather than venture upon a translation which might possibly be erroneous. In some cases, moreover, where he has supplied an English name, he has malidentified the species. In an inquiry like the present it is important to note this.

Higden thus refers to the natural productions of Ireland:—  
 “Terra hæc magis vaccis quam bobus, pascuis quam frugibus, gramine quam grano fecunda. Abundat tamen salmonibus, murænis, anguillis, et cæteris marinis piscibus; aquilis quoque, gruibus, pavonibus, coturnicibus, niso, falcone et accipitre generoso. Lupos quoque habet, mures nocentissimos; sed et araneas, sanguisugas et lacertas habet innocuas. Mustelas quoque parvi corporis sed valde animosas possidet. Habet et aves quas ‘bernaces’ vocant, quas ancis silvestribus similes de lignis abietinis quasi contra naturam natura producit. \* \* \* \*  
 Item Beda dicit caprorum venatu insulam fere insignem, cum tamen constet cum semper capreis caruisse. Nec mirum; cum Beda nihil de hac insula oculis suis cognoverit sed per relatorem audierit.”\*

Of the *feræ naturæ* absent from Ireland, Higden writes:—  
 “Desunt hic degeneres falcones quos laniarios [Lanners] vocant, desunt et gyrofalcons, perdices, phasiani, picæ et philomelæ.

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\* It is possible that by “venatu caprorum” Bede did not intend to refer to the chase of the Roe-deer, as Higden and his translator have assumed, but to the Wild Goat, which in some parts of Ireland is still to be met with at the present day. In Achill, as we have lately been informed by Mr. R. Payne Gallwey, Wild Goats still abound, and, from the inaccessible nature of the cliffs which they frequent, as well as from their natural wildness, they are almost unapproachable even with a rifle.

Caret quoque capreis et damis [Fallow-deer] hericiis [Hedgehogs] putaciis [Polecats] et talpis [Moles] et cæteris venenosis."\*

He then refers to the absence of venomous reptiles from Ireland, and to the tradition that all such creatures were banished from the country by St. Patrick, as well as to the popular belief, as noticed by Bede and Giraldus, that the dust of Irish soil, even if transported to other lands, was a preservative against the attacks of poisonous reptiles.

If we refer briefly, in passing, to the works of Campion,† Holinshed, and Camden, it is rather for the purpose of showing that they have not been overlooked than because they contain anything of importance bearing on the present inquiry; the fact being that each one of these writers has retailed, in his own way, information regarding the fauna of Ireland evidently borrowed from Giraldus Cambrensis and Ranulphus Higden.

'The Description of Ireland,' written by Fynes Moryson,‡ who was Secretary to Lord Mountjoy when Lord Deputy of Ireland (1599—1603), possesses more originality, and contains some few passages of interest.

After noticing the Irish Wolf-dogs "of great stature" (vol. ii., p. 367), the abundance of Wolves "whose destruction being neglected by the inhabitants, oppressed with greater mischiefs, had so grown in number as sometimes in winter nights they would come to prey in villages and the suburbs of cities," he thus refers to the Deer, both Red and Fallow, which were then preserved by certain noblemen in Ireland, and it would appear from his remarks that the Fallow-deer at that date had been only recently introduced:—

"The Earl of Ormond, in Munster, and the Earl of Kildare, in Leinster, had each of them a small park enclosed for *Fallow-*

\* John of Trevisa here translates *hericiis* "ilespiles," omits *putaciis*, and renders *talpis* "wontes." "Want" or "Wont" is a provincial name for the Mole, still used in several counties. Cf. Ray, Dict., and Merret's Pinax, p. 168.

† A Historie of Ireland, written in the yeare 1571, by Edmund Campion, sometime Fellow of St. John's College in Oxford.

‡ An History of Ireland from the year 1599 to 1603; with a short narration of the state of the Kingdom from the year 1169. To which is added a Description of Ireland. By Fynes Moryson, Gent., Secretary to the Lord Mountjoy, then Lord Deputy. 2 vols., 8vo. Dublin, 1735.



*deer*, and I have not seen any other park in Ireland, nor have heard that they had any other at that time. Yet in many woods they have many *Red-deer* loosely scattered, which seem more plentiful because the inhabitants used not then to hunt them, but only the governors and commanders had them sometimes killed with the piece. They have also about Ophalia and Wexford, and in some parts of Munster, some *Fallow-deer* scattered in the woods: yet in the time of the war I did never see any venison served at the table, but only in the houses of the said Earls and of the English commanders."

At the present day, the Red-deer which still roam through parts of Kerry are descendants of the original wild stock, although fresh blood has now and then been introduced by Lord Kenmare and Mr. Herbert of Muckcross. These deer are now numerous and strictly preserved by the above-named proprietors, whose lands adjoin. The weight of the heaviest stag killed on the Muckcross Estate was  $31\frac{1}{2}$  stone, and several have been found to average from 28 to 30 stone.

In the West of Ireland at the present day Fallow-deer roam in a wild state through many districts, descendants of animals which have long since escaped from parks or other enclosures. In Galway and Clare, and even across the Shannon, as we are informed on good authority, every large cover holds a few Fallow-deer. During the spring they issue at night from the woods and uplands, and make sad havoc amongst the neighbouring crops.

But to return to Fynes Moryson. "Ireland," he says, "hath great plenty of Birds and Fowls, but, by reason of their natural sloth, they [the inhabitants] have little delight in birding or fowling. But Ireland hath neither singing Nightingal, or chattering Pie,\* nor undermining Mole, nor black Crow, but only crows of mingled colour such as we call Royston Crows. They have such plenty of Pheasants as I have known sixty served up at one feast, and abound much more with Rails, but Partridges are somewhat rare. There be very many Eagles and great plenty of Hares, Conies, Hawks called Goss-hawks, much esteemed with us, and also of Bees, as well in hives at home as in hollow trees

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\* The Magpie, as will be seen later, is said to have been introduced into Ireland in James the Second's time.

abroad, and in caves of the earth. \* \* \* The hawks of Ireland called Goss-hawks are (as I said) much esteemed in England, and they are sought out by money and all means to be transported thither."

On the subject of Reptiles he says:—"I may not omit the opinion commonly received that the earth of Ireland will not suffer a snake or venomous beast to live, and that the Irish wood transported for building is free from spiders and their webs. Myself have seen some (but very few) spiders, which the inhabitants deny to have any poison, but I have heard some English of good credit affirm by experience the contrary."

In the Commentary of Peter Lombard, '*De Regno Hiberniæ*,' 1632, we find but a brief allusion to the Natural History of Ireland in the chapter "*De generibus animalium tam mansuetorum quam ferarum*," and even in this there is no great originality, the author quoting freely from the older works of Bede and Giraldus. After naming deer, for which Ireland was celebrated, wild boars, wolves, foxes, hares, and rabbits, of which there was a great store in his day, he especially refers to the Marten (p. 99), and to the value set upon its fur: "*Præcipue martes*," he says, "*quorum pelles plurimum æstimantur, et in universum in animalium pellibus magna pars est sita divitiarum hujus regionis*."

Irish Marten-skins seem to have been formerly much sought after. In Charles the First's time Lord Deputy Strafford, in a letter to Archbishop Laud, dated Dublin, 27th November, 1638, wrote:—

"Before Christmas your Lordship shall have all the Marten skins I could get either for love or money since my coming forth of England, yet not to the number I intended. The truth is that as the woods decay, so do the Hawks and Martens of this kingdom. But in some woods I have, my purpose is by all means I can to set up a breed of Martens; a good one of these is as much worth as a good wether, yet neither eats so much or costs so much attendance; but then the Pheasants must look well to themselves, for they tell me these vermin [*i. e.*, Martens] will hunt and kill them notably. Perchance you think now I learn nothing going up yonder amongst them into the forests and rocks."\*

\* Strafford's '*Letters and Despatches*' (1638), vol. ii., p. 249.

Amidst all the cares and anxiety of his responsible position, this same Lord Deputy found leisure to kill an Irish deer now and then. Writing from Coshawe, Co. Galway, to the Archbishop of Canterbury, in May, 1638, he says: \*—"To say the plain truth, whether we shall have a Government or no, and to the intent that I might be the better 'in utrumque paratus,' at this present I am playing the Robin Hood, and here in the country of mountains and woods hunting and chasing all the outlying Deer I can light of; but to confess truly, I met with a very shrewd rebuke the other day; for standing to get a shoot at a Buck I was so damnably bitten with midges [he was addressing an Archbishop, too!] as my face is all mezled over ever since, itches still as if it were mad; the marks they set will not go off again, I will warrant you, this week. I never felt or saw such in England; surely they are younger brothers to the moskitoes the Indies brag on so much!"

From the titles of Dr. Gerard Boate's works,† it might be expected that they would contain some account more or less important of Irish Vertebrata; but the inquiring zoologist who turns over their pages with such expectations will be certainly disappointed. It may be well to note here that these works relate chiefly to the physical aspect of the country, its hills, woods, bogs, lakes, and rivers; mines and minerals; natural curiosities and antiquities.

We will quote but one passage to give an idea of the writer's style, and of the kind of information imparted. It occurs in the second of the books named (p. 192), amongst the natural curiosities, and relates to the Brent Goose, misnamed by Boate the "Barnacle":—

"Barnacles," he says, "are of the Wild Goose kind, and, like them, migrate from foreign countries to Ireland; they commonly come into Ireland in August, and leave it about March; their taste is very different, according to the places where they feed; in most places they are so rank that no curious palate can dis-

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\* 'Letters and Despatches' (1638), vol. ii., p. 173.

† 'Ireland's Natural History,' by Dr. Gerard Boate, 12mo, London, 1652; and 'A Natural History of Ireland,' in three parts, by Dr. Gerard Boate, Thomas Molyneux, M.D., F.R.S., and others, 4to, Dublin, 1726.

pense with such unsavoury food, but in other places they have a most delicious relish, rather better than either a Wild-duck, Teal, or Snipe. This is the case of the Barnacles at Londonderry and Wexford, and I hear the same concerning those at Belfast: the difference, I understand, arises from the food. At Londonderry, in the bay commonly called Lough Foyle, there grows a grass that sends out a stalk about a fathom long; the root of this is white and tender, and continues such for some space above the root, and 'tis almost as sweet as a sugar-cane. The Barnacles dive to the bottom, and lay hold on it as near as they can to the root, and pull it up with them to the surface of the water, and eat the tender part of it; the rest they let drive with the wind to the shore, where it lies in great heaps, and when rotten is good manure for land; and from this sweet grass, 'tis supposed, proceeds the sweetness of their flesh. They are taken by nets, set in proper places on the shores. 'Tis observable that the Divers and Widgeons, which are very rank and unsavoury elsewhere, undergo the same change of their flesh when they feed in this place."

This habit of the Brent Goose, as noticed by Dr. Boate, explains the origin of the old northern name "Rotgaus" (*i. e.*, Root-goose), applied to it both by Willughby and Pennant, neither of whom, however, give the explanation. The word occurs in the 'Durham Household Book' under date 1534, thus: "Feb. 3. Item, one 'Rutgoys,' 3d; one Mawlert [mallard], six Dunlings,\* 2d.; one Seepye, 1d."

In O'Flaherty's 'Chorographical Description of West or H-Iar Connaught,' written in 1684, we have the following brief account of the fauna of that part of Ireland:—"The land produces wild beasts as wolves, deere, foxes, badgers, hedgehogs, hares, rabbits, squirrells, martens, weasels, and the amphibious otter, of which kind the white-faced otter is very rare. It is never killed they say but with the loss of man or dog, and its skin is mighty precious. It [*i. e.*, the country] admits no rats to live anywhere within it except the Isles of Aran, and the district

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\* Does not this orthography suggest the origin of the word, *i. e.*, "the little dun thing?" Compare the diminutives, Titling, Duckling, Gosling, &c.



of the west liberties of Galway.\* The water streames, besides lampreys, roches, and the like of no value, breed salmons (where is recourse to the sea) eels and divers sorts of trouts. There was never a pike or bream as yet engendered in all this countrey, nor in the adjacent parts of Mayo or Galway counteys. The sea here is plentifully stored with fish, as cods, lings, hawkfish, coalefish, turbets, plaisses, hadogs, whittings, gurnards, macrells, herrings, pilchards, &c.; and no less liberall of shell-fish as oysters, scollops, cokles, muscles, razures, together with lobsters, crabs, shromps, &c. It now and then casts ashore great whales, gramps, porcupisses, thunies. Both sea and land have their severall kinds of birds. Here is a kind of black Eagle [*Aquila chrysaëtus*] which kills the deere by grappling him with his claws and forcing him to run headlong into precipices. Here the Ganet soars high into the sky to espy his prey in the sea under him, at which he casts himself headlong into the sea, and swallows up whole herrings in a morsell. This bird flies through the ships sailes piercing them with his beak. Here is the bird engendered by the sea out of timber long lying in sea. Some call them 'clakes' and soland-geese, some puffins, others bernacles, because they resemble them. We call them 'girrinn.' I omit other ordinary fowl and birds, as bernacles, wild geese, swans, cocks of the wood, and woodcocks, choughs, rooks, Cornish choughs with red legs and bills, &c. Here is fowle that custom allowed to eat on fasting days, as Cormorant feeding only on fish; as alsoe birds found in the high cliffs and rocks of Aran, which never fly but over the sea, which with all other numerous sea birds, yield a great store of feathers."

\* The Editor (J. Hardiman), in a foot-note (p. 10), remarks upon this statement, in 1848:—"This is not the case at present. The Norway rat everywhere prevails, having nearly extirpated the little Irish black rat. The latter was the species mentioned by Giraldus Cambrensis in the following passage:—'Est et aliud ibi (*i.e.*, in insula Aran in occidentali Connactiæ solo posita) notabile; quia cum per totam Hiberniam copiose nimis mures abundant, hæc tamen insula mure caret.'"

REMARKS ON THE BREEDING OF CERTAIN  
WATER-FOWL IN CONFINEMENT.

BY CECIL SMITH.

BOTH my father and myself having for a good many years kept ornamental water-fowl on the pond here, and having been tolerably successful in getting them to breed, I think a few notes on the various species which have bred here may be interesting. My experience, though extending over a good many years, has been far less than that of Mr. Sclater, who lately published in the 'Proceedings of the Zoological Society,' a paper on the breeding of various species of *Anatidæ* in the Zoological Gardens, Regent's Park. I propose, however, to give the names of the various ducks and gulls which within my memory have been kept and bred in this pond, either in my father's time or my own, and to add a few notes.

Taking the same order with the *Anatidæ* which Mr. Sclater has done, I begin with the Egyptian Goose, *Chenalopex ægyptiaca*, which bred freely, not only in this pond but on those of some of our neighbours, especially at Sandhill and Cotheleston, which at last I think led to my father's stock becoming extinct, for he did not pinion the young, which, being able to fly, paid occasional visits to their relations. At the latter place they gave great offence to the farmer who rented some grass-fields near the pond, and who eventually persuaded his landlord to have them shot, observing that "three of them things did eat as much as a sheep." My father's flock shared the fate of their relations, and consequently soon became extinct. I have one pair now, but as I only got them late this summer I am not yet able to say whether they will breed or not, but I do not think there is much doubt about it.

Of the Pink-footed Goose, *Anser brachyrhynchus*, Mr. Sclater says, it has "never, so far as I am aware, bred in confinement, although eggs were laid in St. James's Park." With me, however, they have bred rather freely. I first had a pair in 1871, and they laid their first egg on May 2nd, 1872. On this occasion they laid six eggs, three of which were hatched, though only one of the young ones reached maturity. In 1873 the same pair bred again, the first egg being laid on April 27th, but this time they had bad

luck, some of the eggs being sucked by rooks, and the young which were hatched being killed by rats as soon as they were born. In 1874 the young were hatched May 28th, and were soon able to walk about, as the next day the old birds brought their young ones down from the pond, on the banks of which they were hatched, to the one nearest the house. In this year four eggs were hatched out of five, though three of them were rolled into the water the day after they were sat, and I do not know how long they were in the water before I took them out. I have so frequently been unlucky in having eggs sucked by rooks that this year I took the eggs away, and only replaced them when the old bird began to sit. Since this time both the original pair and their offspring have bred regularly every year, though this year, partly owing to my being away, only one young one has been reared. As I mentioned, both in 'The Zoologist' for 1875 and in Mr. Dresser's 'Birds of Europe,' some of the young birds have orange legs and feet, and what ought to have been the pink part of the bill is orange. This was the case with the first bird reared and with the only one reared this year, though in no other respect do they differ from their orange-legged parents.

The Bernicle, *Bernicla leucopsis*, has never bred here, though for almost as long as I can remember there has been a pair of these birds on the pond. Mr. Sclater, however, states that it "breeds freely in captivity." This has not been at all my experience, and although it is mentioned as occurring in the earliest lists of the birds in the Gardens (1833), he only cites one instance of its breeding there, May 23rd, 1848, when young ones were bred.

The Canada Goose, *Bernicla canadensis*, bred freely on the pond in my father's time, as they did in some neighbouring ponds, but were killed at the same time, and for the same reason, as the Egyptian Geese, and I have never renewed the stock, as they are rather larger birds than I care to have.

I have a pair of Brent Geese, *Bernicla brenta*, now on the pond, but they have not shown any inclination to breed. This is the first year, however, I have tried them.

A pair of Common Sheldrakes bred here regularly for some years in my father's time, but he never had the young ones pinioned, thinking they were so tame that they would stay; but they never did so after the following spring. I have now only

one pair in the pond, and the female has regularly nested and laid for the last three years; but she has not been wise in her choice of a place for making her nest, for instead of choosing a rabbit's hole, as the old pair always did, she has chosen a dark corner of an outhouse which I generally use for keeping mangolds in during winter. Soon after the mangolds are all gone, in the spring, she takes possession of the darkest corner to make her nest in, and the eggs have always been taken or the young killed by rats. The young are by no means difficult to bring up, and if left with their parents, who are much better mothers than the common Wild Ducks ever are, may usually be successfully brought up. At many of the farm-houses near the coast young Burrow Ducks are brought up with the ordinary tame ducks.

Both my father and I have always had Widgeon, *Mareca penelope*, on the pond ever since I can remember, but they never bred till 1872, when, on the 27th June, they brought out their first brood, as recorded by me in 'The Zoologist' for that year (p. 3244), and they have bred regularly ever since; but as I do not catch the young ones and pinion them, they generally depart in the following spring—that is, those which do not fall victims to the Herring Gulls in their earlier days, for these gulls are terribly destructive to all young wild-fowl as well as to eggs.

Both my father and myself have frequently kept Pintails, *Dafila acuta*, on the pond; but though both male and female cross readily and constantly with the Wild Ducks, I have never known them behave as they ought and breed together.

Wild Ducks, *Anas boschas*, have bred regularly ever since I can remember. The first eggs are always laid about the middle of March, showing that the 1st of March is by no means too soon for the close time to begin. The only dates of hatching I have are—1864, April 13th; 1865, April 12th; 1866, April 28th (the latest I have); 1876, April 16th; and 1878, April 14th. In other years I have missed taking a note of the appearance of the first brood, owing to absence from home or some other cause; but I have notes of Wild Ducks sitting hard which would correspond very closely with the above dates of hatching. With one exception (April 24th) Mr. Selater's dates are all later than mine, being all in May. I remember that, when I was a boy, one or more Wild Ducks always nested on a garden-wall fully twelve feet high, but



how they brought the young ones down I never could find out. The wall has been pulled down for a great many years, so I have no chance of seeing them brought down from there. One or two, however, nest every year in the ivy on a low wall near the pond, from which the young must be brought down by the mother, so I hope to witness the performance some day; but it is done almost immediately after hatching, as I have never found young in the nests on the wall. One day the old duck would be sitting hard and no young hatched; the next day there would be only the egg-shells in the nest, and the young would be swimming about with their mother in the pond.

Though there has always been ever since I can remember a pair of Tufted Ducks, *Fuligula cristata*, on the pond, they have never bred or shown the slightest disposition to do so.

There have always been a pair or two of Pochards, *Fuligula ferina*, on the pond ever since I can remember, but they only once nested and hatched a brood—namely, on the 12th May, 1872. (See Zool. 1872, p. 3243.) This brood, which consisted of four young ones, one other being left dead in the nest, I am sorry to say, did not survive long, for on the next day, the 13th, they were washed down one of the waterfalls in a flood, and all drowned but one, which I fished out and returned to its mother. During the time the young were alive the mother beat off the old drake, and would not let him come near her or her brood; but when she thought all the young were lost she took to the drake again. When I found and restored to her the one which was still alive she immediately took to it and beat the drake off again; the young one, however, did not live long, some accident having happened to it. Since that time the Pochards have never brought out a brood; the hen bird has laid and begun sitting, but accidents have prevented her hatching, partly because she has never made such a judicious choice of a nesting-place. The Pochard is the last on my list of the ducks which I have been successful in breeding from.

With the gulls I have also, to a certain extent, been successful. A pair of Herring Gulls, which I caught in Sark before they could fly, in June, 1866, nested and hatched their first young on the 14th June, 1873, having only attained their fully adult plumage that year. Since then they have laid regularly, and frequently been successful in rearing the whole or part of their brood. They

generally lay about three eggs, but if anything happens to the first ones they lay again. They are rather restless sitters and very anxious about their eggs, having found out that the Rooks are constantly on the look out to suck them, and are often successful if both leave the nest, for a few moments even, to feed; so now they seldom both leave the nest together, one always remaining either on, or close by, the nest after the first egg is laid. They always choose the same place at the foot of the stump of an old walnut tree which was blown down some years ago, the stump having been left standing for them.

Two Lesser Black-backed Gulls were sent to me from Alderney in July, 1879, almost in the down and quite unable to fly. They are, I suppose, both females, as they have not paired with each other; but in May, 1880, by which time they had both assumed fully adult plumage, one of them paired with an adult male Herring Gull. She laid three eggs, but only one was hatched. The young bird was just able to fly by the 30th July, when we caught it and cut its quill-feathers, but unfortunately did not pinion it. At this time it was impossible to distinguish it from a young Herring Gull of the same age. Owing to a long absence from home, I found this bird and the young Herring Gull of the same age able to fly well, and it was quite impossible to catch either of them. Both remained here, however, till May of the present year; but at that time it was almost impossible to tell which was which. The only difference I could see was in the colour of the legs, those of the cross-bred bird showing more inclination to yellow than those of the young Herring Gull, which were then nearly the pale flesh-colour of the adult. While I was away both took their departure; but one of them, the young Herring Gull, constantly returns, sometimes remaining several days at a time and sometimes departing immediately after feeding time, and not making his appearance again till feeding time the next day; but I am afraid the cross-bred bird has entirely disappeared. This practice of dropping in at feeding time and remaining a long or short time, as may happen, has been adopted by several other Herring Gulls this year. Some of them may have been bred here and gone away, but one of them is certainly an entire stranger, as he is a young bird of the year, and my tame ones this year were unfortunate, and did not rear the only one which was hatched. Some of the others are, I think, also quite strangers,

although they are all quite as tame as the old ones, and, having the advantage of being able to fly, get much the best of the scramble for food. Lately four have been in constant attendance, and as they are all of different ages they make a very interesting group, showing the various changes of plumage, the youngest being the bird of the year, and the oldest just assuming adult plumage, which will be complete this moult.

I have not been so successful with the Common Gull, *Larus canus*, as with the Herring Gull, for although they have frequently nested and laid eggs they have never been lucky enough to hatch them, partly owing to Rooks and Herring Gulls, both of which are constantly on the look-out to suck their eggs, and are frequently successful.

The little Black-headed Gull, *Larus ridibundus*, has never attempted nesting nor laid eggs, though I have had a good many of these birds on the pond for some time. They go through their regular changes of plumage, assuming their black heads about February, and now (at the end of September) they have completed their winter plumage.

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#### ON THE OCCURRENCE IN SCOTLAND OF THE BLUE-THROATED WARBLER.

BY J. A. HARVIE BROWN, F.R.S.E., F.Z.S.

ON the 24th September of the present year I received a box containing three birds which were captured during the two previous days at the lantern of the Isle of May lighthouse, in the Firth of Forth, and which the reporter, Mr. Joseph Agnew, head lighthouse-keeper, desired to have named. One of these was a Nightjar, *Caprimulgus europæus*, a species hitherto unknown at this station; another was an adult male Redstart, *Ruticilla phœnicura*; and the third is the subject of this notice.

Along with the box of birds Mr. Agnew sent me the third fully filled-in schedule which I have received from him for 1881, and I cannot pass on here without testifying to the intelligent interest and careful attention which is manifested in these schedules. At the same time I am glad to testify in like manner to the general interest created by the Abstract of our Report on

Migration read at the last meeting of the British Association, and by the distribution of this Report to the various lightship and lighthouse stations in England and Scotland. We have to thank the Trinity House for the liberal view they have taken of the work, and for relieving us of much expense in connection with it.

According to Mr. Agnew's schedule, under date Sept. 17th, the wind was light westerly with haze. The next record occurs on the 22nd, the date of the capture of this specimen and of numerous arrivals of Redstarts, Mavises, Swallows, Golden Plover, Ring Dotterel, Lapwings, Chaffinches, one Corn Crake, one Robin, Curlews, &c.—indeed of a "rush" of migrants. On that day, and for some days previous, the wind was strong S.E., and it continued so all day: "weather, very thick haze, approaching to fog, with a continuous downpour of rain." Mr. Agnew adds, "All the birds seen to-day seemed perfectly bewildered."

The bird of which I now speak is *Cyanecula Wolfi*, or the white-spotted—sometimes spotless—form of the Blue-throated Warbler. The other form, *Cyanecula suecica*, or Red-spotted Bluethroat, is more northern in its range in Europe than the bird under consideration, and hitherto, with one exception, is the only species or form of the genus which has been recorded in Great Britain. *Cyanecula Wolfi* is found over Central Europe, and breeds in Holland, Germany, and southward, and is found in winter in Spain, Italy, and the shores of the Mediterranean (*vide* Dresser's 'Birds of Europe,' vol. i. p. 312), and according to Prof. Newton (Yarrell, 4th ed. vol. i. p. 324) has only once before occurred in Britain (*vide* Hadfield, Zool. 1866, p. 172, where the bird recorded as "Blue-throated Warbler" belongs to this form). The specimen in my possession closely agrees with the bird figured in Dresser's 'Birds of Europe' (vol. i. pl. 50), of which he says (p. 320), "a male of *C. Wolfi* in rather peculiar autumn plumage." I have now, therefore, to record the second occurrence of the white-spotted form (which two Dresser unites under *Cyanecula Wolfi*) in Britain, and its first occurrence in Scotland.

Now, in connection with the distribution and rare occurrences of European or other species in Britain, I wish here to say a few words. In 1875, on the 10th November, I obtained a Black Redstart, *Ruticilla titys*, at Kincardine-on-Forth, which was duly recorded, and the specimen exhibited, at the Royal Physical



Society's meeting in Edinburgh, on the 21st February, 1877. At that time I said, "What we have for a long time considered as accidental—purely accidental—occurrences of continental species ought, in many instances, I think, rather to be held as indications of extension towards the north of their breeding limits on the Continent." Since then, as I will show, I have somewhat modified this opinion, as I think, besides such occurrences being partly due to northern extension of the breeding range, they are also due to prevalence of easterly and south-easterly winds and gales blowing the migrants more to the northward than in other circumstances they would be borne. But on this point see the Report on Migration of Birds in 1880.

Again, near Alloa, at a locality not far removed from Kin-cardine-on-Forth, where I shot the Black Redstart, Mr. J. J. Dalgleish has recorded\* the occurrence of another south-eastern species,—viz., the Desert Wheatear,—which will also be found alluded to in the same Report. At that time also the prevailing winds were E. and S.E.

Now again occurs another Central and South European species (*C. Wolfi*) at the Isle of May, in the Firth of Forth, during prevailing and strong S.E. winds, which species has not before been recorded from Scotland.

What I want specially to point out here is, that the localities of Alloa and the narrow part of the Firth of Forth, and the Isle of May and the shores of the Firth, all *lie in a line*, or nearly so, running from E. to W., and I only desire further to remark that Alloa and that part of the country appears to be visited by many other rarities, such as the Waxwing and Great Grey Shrike, and a line of distribution of the occurrences of the Great Grey Shrike runs also broadly across Stirlingshire, the narrowest part of Scotland. I indicate these facts for further study and comparison, only adding that, as far as I can at present judge from numerous statistics at command, I believe the waves of migration of certain species take certain and fixed lines, according to influence of weather and winds; or, in other words, that certain continental species are known to turn up at certain localities in Britain with greater regularity and precision than at others; and that, in extraordinary seasons and with prevalence of wind from unusual

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\* Proc. Royal Phys. Soc. Edinb. 1880-81, vol. vi. p. 64.

quarters, a corresponding change will take place in the distribution of so-called "accidental occurrences" of continental species in Britain; and further, that this will be aided to a considerable extent by the northern range of such species on the Continent during the breeding season in exceptionally fine summers, or by the natural extension of the breeding haunts of many species.

One more point I would like to bring forward in support of what I still consider theory, but which to me seems strongly supported already by known facts. In 'The Field' of May 7th, 1881, were recorded occurrences of the Pied Flycatcher in Sutherland and Rosshire; and about the same date other occurrences were recorded from various parts of the east coast of Scotland. A pair lingered a long time at one locality in East Sutherland, but finally disappeared. These, of course, belonged to the spring migration of 1881. Now, how are we indebted for such an unusual visitation so far west of the continent of Europe at this season? My idea—theory, if you will—is as follows:—As we have shown in our Report for 1880 that birds were carried farther west than usual by the easterly gales of the autumn of that year; the consequence of this was that the birds wintered at localities farther west than usual, and also returned to their breeding haunts by routes removed farther west than usual in the following spring.

It may be said it is a pity to advance theories without sufficient bases of facts in such matters, and doing so might perhaps be characterised as unscientific; but I advance it in what I believe to be the interest of our enquiry, whether correct or erroneous; because what we want is more general attention to the meteorological necessities of our investigation, and a wider appreciation by our reporters and those who are assisting us of the necessity of a comparison of the data, year with year, in the future. It is on this account that I would urge the mapping out of the distribution of the occurrences of rare continental forms in Britain, year after year, and also the comparison of these annual maps, the one with the other, and with the meteorological facts of each year.

Mr. J. J. Dalgleish and Mr. Freke are doing good work in enumerating all the occurrences of American birds in Europe and mapping them out, and *vice versa*. It would be desirable to

extend this plan to all specimens of the rarer continental species in Britain, the meteorological data, and a corresponding map of Europe, showing the northward range of these birds in the breeding season. We ourselves have not time to devote earnestly to this additional work, but we believe that the field suggested would be sure to yield to any naturalist taking it up as a separate branch, a rich harvest in course of time.

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## NOTES AND OBSERVATIONS ON BRITISH STALK-EYED CRUSTACEA.

By JOHN T. CARRINGTON, F.L.S., AND EDWARD LOVETT.

(Continued from p. 418.)

### Genus XANTHO, Leach.

We now take a final leave of the "Spiders," or triangular-shaped crabs, and come to the ordinary or true crab-shaped form. The first of these genera, taken in the classification hitherto followed, is *Xantho*, Leach. The chief generic characters are a broad, slightly convex, and somewhat wrinkled carapace, massive and hard in its structure; orbits slight; legs short and stoutly built, especially the anterior pair, which are very broad and large; external antennæ very short. Male abdominal segments five in number, female seven, and as usual broader than those of the male.

### *Xantho florida*, Leach.

This interesting crab is usually about two inches broad and an inch to an inch and a half long; specimens, however, occasionally exceed these dimensions. The whole of the exoskeleton, as we have noticed in the generic description, is of a powerful and massive nature, and when we come to look into the habits of the animal this is well accounted for. This crab not only loves to live under large stones and rock masses, but we have frequently observed it in numbers safely ensconced in rocky clefts, into which it forces itself, and from which it is difficult to dislodge it. In fact, its habits in this respect would be quite unadapted to a crustacean with a more delicate carapace.

In the younger state the carapace and legs are very much more wrinkled than they are in the full-grown animal. They are,

moreover, of a dirty brown colour, but turn to a rich dark red as they approach maturity. In the Channel Islands it is called "l'ancien," on account of the somewhat aged appearance of the animal. The tips of the claws are shiny black, which adds to its beauty. Altogether there are few of the British Crustacea more attractive to the naturalist than *Xantho florida*.

The anterior lateral margin of the carapace has four bluntly-pointed teeth on each side of the deflexed portion that takes the place of a rostrum; this portion protects the orbits, which are notched on their lower margin. One of the chief distinctions between this and the following species is that the carapace of *Xantho florida* is convex, whilst that of *X. rivulosa* is very flat.

This crab is recorded by Bell as being found in considerable numbers on the coasts of Cornwall, Devonshire, and Dorsetshire, and has also been recorded from the south and west coasts of Ireland; Galway, very common, the unicoloured variety being as common as those with black-tipped claws; the Hebrides, between tide-marks; South Devon, frequently; Devon coast, common—a frequent light variety, somewhat similar to *X. rivulosa*. We have observed it in large numbers on the low-tide rocks below St. Michael's Mount, Mount's Bay, Cornwall, and the La Rocque shallows of Jersey, where, in each locality, its habit of secreting itself under large rocks was well seen. Owing to this habit it is seldom or never dredged, for a good dredging ground is not the usual resort of this species.

One very marked peculiarity connected with *X. florida*, and indeed with its ally *X. rivulosa*, is the proclivity it possesses for shooting or throwing off its limbs; we have seen a specimen part with its whole ten legs upon being wrapped in linen soaked in alcohol, and in killing others for the purpose of preservation the same thing has occurred.

The ova of this species are very beautiful, being connected by ligatures in massive bunches. Their colour in the early summer, when they are chiefly exuded, is a rich golden, becoming dark, as usual, as development proceeds. We obtained specimens with fully mature ova from Scilly and Cornwall in September and October; and we think that, like some other species, *X. florida* is with ova at periods varying slightly in different localities, and possibly depending somewhat on temperature.



*Xantho rivulosa*, M.-Edwards.

Leach appears to have considered this species a variety of the last-named, though its specific characters seem well marked. Its size is, on the average, smaller than that of *X. florida*; its carapace is very level, whilst that of the other species is convex. The colour of this crab is very variable, and specimens are often beautifully marked. It is usually of a yellowish tint, variegated with red, some specimens, however, are nearly white, and others possess markings more definite and more numerous. Another marked distinction is the groove with which the movable pincer is furnished, and the pincers themselves are brown, whilst those of *X. florida* are black.

Bell thinks that there is no doubt that this is the *Cancer hydrophilus* of Herbst; he also mentions it as being referred to by Mr. Couch, of Polperro, as more common at that place than *X. florida*. It would be interesting to know if this abundance has been confirmed. Its general habits and locality are similar to those of the last-mentioned species, and we should therefore suggest that where *X. florida* occurs diligent search should be made for the rarer and more remarkable form, *X. rivulosa*. We found this species not uncommonly at very low tide, with *X. florida*, under rocks below St. Michael's Mount, Cornwall. We have received it sparingly from under stones near Lynton, North Devon, and a single specimen from Milford Haven. It has been also recorded from the Shetlands, Hebrides, South Devon, Valentia, and Galway; rare in the two latter localities.

We have taken it with ova at the same time as *X. florida*, and probably it sheds its young at about the same period.

*Xantho tuberculata*, Couch.

Bell, in the Appendix to his work, mentions, and in fact describes, this species, but we have not yet met with it ourselves, and very little appears to be known about it. If it is a well-defined species, no doubt it is limited to extreme localities, which may thus account for its recent non-occurrence. It is described as partaking of the characteristics of both of the former species, the hands and wrists being somewhat tuberculated and rugose. The whole of the ambulatory feet having the fourth, fifth and sixth

joints hairy, with longer cilia on the edges; the third joint distinctly denticulated along the upper margin, with a hairy patch beneath. The carapace is of a light flesh-brown colour, and the formation of it in some respects resembles *X. florida* and in others *X. rivulosa*.

Mr. R. Q. Couch, who discovered this species, says that it prefers deeper water than the two former species, but that in summer it approaches the shore, and is then found under stones. It spawns in June.

We have no wish to question the existence of a species with which we are so little acquainted, but its description so nearly corresponds to the young of *X. florida*, which species differs very much at various stages of growth, that it almost seems as if the discovery of one or two specimens in an isolated spot might be reasonably attributed rather to a variation owing to local circumstances than to the existence of a new and distinct species, particularly as it so closely resembles both the last-named.

*Cancer pagurus*, Linn.

This is the "crab" of commerce, and to most people the *only* crab. It enjoys the position of being an object of legislation, and the cause of a large and wide-spread fishing industry.

*Cancer pagurus* is the sole representative, in our seas, of the genus, though many others exist. The carapace is, roughly speaking, oval, somewhat convex, and having the usual indentation but slightly shown. The anterior margin is regularly notched or rather "crimped." The orbits are circular, and the eyes are capable of being deflected for protection beneath a toothed edge; the antennæ are comparatively small, with the basal joint elongated. The anterior pair of legs are massive and broad, the ambulatory legs hairy, the pincers black and armed with powerful rounded tooth-like projections. The segments of the male are narrow, those of the female broad; they are armed with tufts of stiff hair. The colour of this species is a brick-red or reddish brown, and it does not undergo such a striking change of colour in boiling as do most of the other Crustacea. The tints of young specimens vary considerably, some that we have met with being of a pale yellow, whilst others were, as Bell also mentions, of a purplish hue.

At the time of exuviation the female retires to a secure rock-hole, where she is protected by a male, and it is at this period that impregnation takes place.

Although so common and widely distributed it is not a frequent occurrence to meet with it in ova. Bell records that, according to Mr. Couch, this is deposited at all seasons of the year. We have not as yet had the advantage of meeting with it in a way that would enable us to describe it accurately from personal observation.

This crab is known from almost all parts of our coasts, and is recognised by various names, the principal of which are, of course, "The Crab" and the "Edible Crab." In Scotland they are called "Partens;" in Kent, "Pungs." In Jersey it is known as "Poing-clos;" in Guernsey, large full-grown examples, "Chancre;" in some parts of France, "Torteau."

We cannot pass over its occurrence in the Channel Islands without protesting against the way in which the extermination of this article of food is gradually there being carried out. It is a usual sight in the markets at St. Heliers to see, offered for sale at a mere nominal price, literally bushels of young *C. pagurus*, less than three inches across the carapace. As an article of food they are, at this age, comparatively worthless; whereas if their capture under a certain size were rigorously prohibited, as in England, the probability is that an ordinary sized specimen might sometimes be procured at a reasonable price, and would, moreover, be within the reach of those who are at present compelled to regard it in the light of a luxury.

The fishermen of Mount's Bay, Cornwall, say that formerly none but male crabs were taken for the market, owing to their superiority, but that of late years females have also been taken and sold at a lower price—often for as little as a penny or two-pence each. The French boats which sometimes enter Cornish waters are frequent purchasers of these female crabs. The result of this is only what might be expected—namely, that this animal is gradually becoming less abundant there, and also at Mevagissey, where the same practice has been carried on. In how many other localities this state of things occurs we cannot say, but if the commercial value of the female crab as an article of food be so much inferior to that of the male, when we consider to what prejudicial results their persistent capture will lead in

diminishing the supply, we cannot but express our surprise that this practice is permitted to continue.

The method in which crabs are caught is probably well known. The crab-pot—called in some localities “creel”—is a wicker basket-like trap, the entrance of which is usually at the top, and egress is rendered impossible by the ends of the willow-stems being turned inwards and cut off just below the opening, on the principle of an eel-trap. These pots are sunk in a rocky locality, in about twelve feet, mean depth, of water, by means of stones tied to the bottom, and are baited with pieces of fish, frequently dog-fish. There is a prevalent idea that crabs are attracted by decomposed bait; but, although this is true as regards lobsters, prawns, &c., it is not so as regards crabs, for we have frequently seen fishermen rebait their pots, even when the piece of fish used as bait was but slightly tainted, for they said it was no use at all unless quite fresh.

As we have already pointed out, this crab is very widely distributed in the British seas, and it is a remarkable fact that on the western coast of England they grow to a much larger size than those on the eastern coasts; whereas at Galway, on the west coast of Ireland, it is said that they not only do not attain such dimensions, but are also inferior as an article of food to those taken on the east coast of Ireland.

The chief crab fisheries on our English shores are in the counties of Northumberland, Yorkshire, Norfolk, Sussex, Hampshire, Dorsetshire, Devonshire, and Cornwall. In Scotland the principal stations for this industry are on the east coast, and on part of the north coast between Duncansby Head and Loch Erribol, although some are occasionally fished on the west coast. Crabs are not generally articles of consumption in Scotland as in England; whilst in Ireland, owing partly to disfavour, but principally to difficulties in transit, they are still less eaten.

The mode of sale of this crustacean seems to vary considerably in different localities; for instance, in Billingsgate they are generally sold by the barrel or kit, whilst in Bognor, we understand, they are sold by weight; in other places, however, they are most frequently sold by the dozen. In some parts of Cornwall a dozen consists of twenty-six crabs, over the gauge, or fifty-two crabs if under the gauge. This gauge is five inches across the widest part of the carapace, taken from side to side,



and not from the rostrum to the abdominal segments; but owing to the variation in size in different localities, to which we have already referred,—and which may possibly be due to more or less favoured conditions,—there appears to be some necessity for a kind of sliding scale to meet this variation.

(To be continued.)

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## OCCASIONAL NOTES.

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SCARCITY OF THE BADGER IN SUFFOLK.—I am sorry to have to record the death in this county of a Badger, which was trapped in a wood at Great Bentley, near Ipswich, and was afterwards found and killed by some labourers, it having dragged the trap and chain a considerable distance. This animal must be on the very verge of extinction in Suffolk, though existing in a few localities, as a rare animal, within the memory of man. It is a great pity that this should be the case, as a few of these interesting animals would surely do but little harm in many large woods, especially where Foxes rather than Pheasants are preserved, and would be a source of great interest to many. The present deplorable system of extermination which for years has been carried on by gamekeepers against so many species of birds and animals, many of them certainly doing more good than harm, is tending rapidly to diminish our list of carnivorous and partially carnivorous mammals, at any rate in this district; and the corresponding increase of animals really noxious to man, when allowed to multiply to too great an extent, as rats, mice, and moles, is equally apparent; whereas if a certain proportion of their natural enemies were allowed to live, their numbers would soon be reduced without the aid of that most objectionable and then unnecessary personage, the professional rat-poisoner, the victims of whose skill are far from consisting exclusively of rats and mice.—G. T. ROPE (Blaxhall, Suffolk).

FOOD OF THE SHORT-TAILED FIELD MOUSE.—Noticing the large amount of food consumed by a Short-tailed Field Mouse, *Arvicola agrestis*, which I am keeping in a cage, I determined to weigh the quantity supplied and eaten in twenty-four hours. Just now I am giving it clover, and find six drachms (apothecaries' weight) to be barely sufficient to last it twenty-four hours, and as the little creature does not, I suppose, much exceed an ounce in weight, the consumption is enormous; and one can quite understand that where they are very numerous they might eat up all the herbage,

as they are reported to have done, in years gone by, on the marshes of Dengie Hundred, Essex, and elsewhere. Until I made this experiment I could not properly realise the amount of destruction to herbage the Rodents are capable of; the sum total for this county only would be enormous.—HENRY LAVER (Colchester).

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ON THE FOOD AND HABITS OF THE BITTERN. — The note on the Bittern in Mr. Norgate's interesting paper "On the Food of Birds" (p. 410), called to my remembrance a curious incident witnessed by myself and some of my brothers many years ago in Oxfordshire. And as its history is instructive as well as amusing, I will give it *in extenso*:—One day, in mild weather, about the middle of December, I and three of my brothers were Snipe-shooting in a small marsh, where those birds were accustomed to congregate in great numbers. In the middle of this marsh was a tract of ground, about two acres in extent, covered with tall reeds, and traversed, or rather bisected, by a somewhat rapid brook, whose banks were much elevated above the level of the marsh, and covered with tussocks of long sedge. We had with us on the day in question three of the best Snipe-dogs that were ever seen; they never ranged wider than ten or twelve yards from the gun, and never failed to find every Jack Snipe within three yards of their path. These dogs were German Water Spaniels, a scarce breed, and invaluable for any kind of shooting, but one which the climate of England does not seem to suit; perfectly mute themselves, they would instantly respond to any sign from their master's hand without requiring a word to be spoken. I much regret to add that we have long ago lost this breed, and have never been able to replace it; their portraits are now all that is left. I feel sure that most of your readers will sympathetically pardon this short digression; and now I will go on with my story. We had carefully beaten the whole of the reeds, had bagged ten or twelve couples of Snipes, and fired at the least half as many more shots. Just then I was following my brother Bertie along the bank of the brook, and, supposing that nothing could be left there, had turned into the flood-water to cross over to another part of the marsh. I had not, however, advanced many steps before I heard him exclaim, "Look out! whatever you do, look out!" I turned quickly round and saw him, with his head thrown back and his gun extended in front, make a plunge into a tussock or sedge, and immediately after emerge therefrom dragging out an immense Bittern by the neck. The scene was most picturesque and exciting; the Bittern was in a fury, his splendid crest and hackles were set up to their fullest extent, he beat his captor violently with his wings, and with his long claws scratched viciously at his body, until I had secured his legs. In a minute the whole party had assembled, and a council of war was inaugurated; it seemed monstrous to

murder such a noble bird in cold blood ; some advised throwing him up and taking the chance of a fair shot ; one very faintly suggested a free pardon ; but at this conjuncture the compression of his throat, together with alarm at finding himself in such an awkward predicament, appeared to take a violent effect upon the stomach of the Bittern ; spasms came on rapidly, and, on the pressure of his throat being relaxed, he forthwith began to discharge the contents of his stomach. First appeared a good-sized Jack, at least four ounces in weight : this was followed by five other Jacks from two to four inches long ; then came a Bull-head, and, last of all, a Water Newt. Such an exhibition of plunder at once sealed his fate, and, taking a powder-flask from my pocket—those were days of muzzle loaders—I administered the *coup de grace* by a sharp blow on the back of the head, and, a long pole having been procured, on which our prize was hoisted as a banner, we all marched home in triumph. Two facts in the life-history of the Bittern may be learned from this incident. With reference to Mr. Norgate's subject, it would appear that Pike form its favourite food, and, although its taste is somewhat indiscriminate, I believe them to be the objects of its choice. Again, the conduct of this bird in remaining concealed for probably as much as two hours, in the course of which between thirty and forty shots had been fired in the immediate vicinity of its lair, and its whole neighbourhood disturbed by the passing and repassing of four men and three keen-scented dogs, opens our eyes to the lurking and sedentary habits of the species. Indeed, since that affair I have always believed that the Bittern is far more common than is generally supposed. I have myself seen the bird on four different occasions in Oxfordshire, and, I doubt not, have unconsciously passed many others. I once saw a bird of this species rise from a grass-field, and ascend with a perpendicularly spiral flight of no great diameter, until it was beyond the reach of eyesight in the clear sky ; but I believe that I have seen the same style of flight mentioned elsewhere. To this story of the Bittern I can add another note on the food of the Godwit, which may possibly apply to other waders also. A well-known birdstuffer in Oxford, the late Mr. Forrest, had in his possession a tame Godwit of the common bar-tailed species. This bird was very fond of any kind of corn. I have often seen him pick up the grains from the floor with the point of his long bill, and then, by a sudden movement of his head, jerk them upwards into his mouth ; the motion was amusing, and very neatly executed.—A. MATTHEWS (Gumley, Leicestershire).

OCCURRENCE OF THE GREAT REED WARBLER IN KENT.—While snipe-shooting on September 14th I came across a warbler of some kind, which I failed to identify satisfactorily. I had marked a Snipe down, as I believed, in a watercress-covered stream which flowed between an alder-bed on one

bank, and a bank of very high reeds on the other. I had not gone far up the windings of this channel, pushing aside the tall *Lythrum* and *Eupatoria* as I went, when the bird in question rose out of the coarse herbage and instantly entered the reed-bed opposite. Being struck with its appearance, which differed both in size, colour, and manner of flight from the Reed Warblers that I had met with more or less all day, I signalled to my keeper, who was carrying my marsh-jumping pole, and when he came up I sent my retriever into the reeds where the bird had entered. The bird moved through the reeds at once before the dog, and my keeper seeing it, forced it out by a thrust or two of the pole. It flew along the water-course very low, just topping the cresses, with a weak fluttering flight, and some dust-shot then struck it down. I anticipated no difficulty in identifying it by a reference to Gould's 'Birds of Great Britain,' and I turned at once to the description of the Thrush Warbler, *Acrocephalus turdoides*. Beautiful, however, as are the plates, and admirable as are the popular descriptions in this work, it is unfortunately wanting generally in precise information as to measurements, colour, &c., and in this instance nothing beyond the plate is given towards identifying a supposed specimen. Gould's figure measures 8 inches; my bird measures  $7\frac{3}{8}$  inches. The general aspect, structure and size of the bill, and markings—as far as the bird possesses them—agree, with the exception of feet and tarsi, which in the coloured plate are of a pale yellowish brown, and in my freshly-killed bird a very decided light bluish slate-colour. Without professing to give a scientific description of my bird, I should describe it as follows:—Bill, upper mandible brown; lower, purplish brown, lighter towards the gape; point to gape, one inch exactly. Top of head raw umber-brown, with a lighter line over the eye from the base of the bill to the top of the auricles. Upper portion of head, neck, back, wing-coverts, primaries, secondaries, and tertials, umber-brown, with a raw sienna tint. Rump and tail the same brown, with a reddish yellow tint. Chin whitish. Under parts whitish, tinged with raw sienna, deeper on the coverts of the thighs. Under tail-coverts tinged with yellow-brown. Greater wing-coverts and primaries faintly margined on outer webs and ends of feathers. Eleven feathers in tail; middle feather the longest; tail cuneiform. Irides brown. Length from point of bill to end of tail,  $7\frac{3}{8}$  in. Tarsi bluish slate,  $1\frac{5}{16}$  in. long; toes brownish. Second quill-feather the longest in the wing. The bill is strong, and the form of the head very like a Redwing's; in other respects the form more nearly resembles the aquatic warblers, though somewhat more elongated. Can you help me to identify this species? I have been particular in a description of its "manners" when first moved, since its disinclination to leave the reed-bed and its very short flight coincide with Gould's description of the Thrush Warbler. Its greater length and deeper colouring are the chief points where agreement is wanting; but perhaps, if his work has a fault, it is in its general too high



colouring. Since writing the above I am convinced the bird is *Acrocephalus turdoides*. Mr. Gordon, the curator of the Dover Museum, is quite satisfied about it. We have compared it with Yarrell, and it answers exactly, with the exception of the length— $7\frac{3}{8}$  in. against Yarrell's and Gould's 8 in.—and the colour of the legs, given by both Gould and Yarrell as brown; whereas mine, when fresh, were slaty-blue. My bird's legs, having dried, have now turned brown. As to length, Yarrell quotes Latham, and does not speak from his own observation, and no one can read Gould's letterpress without seeing that he mainly went to Yarrell for his description. On skinning my bird it turned out to be "a perfect ball of fat,"—so Gordon described it,—and this might perhaps account for its laboured flight, which surprised me.—W. OXENDEN HAMMOND (St. Alban's Court, Wingham, Kent).

[The proper name which this bird should bear, according to Professor Newton (Yarrell, 4th ed., vol. i., p. 365), is *Acrocephalus arundinaceus* (Linnæus).—ED.]

OCCURRENCE OF THE RUSTIC BUNTING (*Emberiza rustica*) IN YORKSHIRE.—To record the addition of a new bird to a county-list is always a pleasing duty to one specially interested in its avifauna; but when the species is one whose claim to be considered British has hitherto rested upon the somewhat unsatisfactory basis of a single occurrence, it is not only an additional pleasure, but to British ornithologists generally it is a matter of considerable importance as substantiating a claim which otherwise might be regarded with somewhat mixed satisfaction. Up to the 17th of September last the only example of this species known to have occurred in Britain was caught alive near Brighton on October 23rd, 1867, and is included in Prof. Newton's 'Yarrell' (vol. ii. p. 29). The second British example, now to be recorded, was shot on the beach at Easington, in Holderness, on the 17th September last, by Mr. Townend, of that village. When first observed the bird was on the sands close to the sea; on being approached it took a short flight, alighting for a moment on some thistles, and again returned to the sands and was shot. Mr. Townend gave this bird to Mr. W. P. Lawton, who set it up for his beautiful collection of local birds. Unfortunately, not knowing the value of the capture, Mr. Lawton failed to make a note of the sex and other particulars which would have been interesting. The bird remained unidentified until I visited Easington on October 7th, when I at once saw that it was one of the rarer Buntings, and brought the specimen to Leeds with me for examination and comparison. I may say that my identification of the bird has been kindly confirmed by Prof. Newton, in whose custody the specimen now is, and by whom it will probably be exhibited at the next meeting of the Zoological Society. In plumage this specimen agrees very well with Mr. Dresser's figure of the young female, but on the back, breast, and flanks the markings

are much more vinous—in fact, more like those of the adult male in tint. It is interesting to know that Herr Gätke, in a letter to my friend Mr. Cordeaux, dated from Heligoland, Sept. 17th (the day on which the Yorkshire example was obtained), says “got to-day *E. rustica*, a fine young bird.” Probably the Heligoland and the Yorkshire bird were near relations, or at least travelling companions from the north-east.—W. EAGLE CLARKE (Leeds).

BIRDS AND TELEGRAPH-WIRES.—Many of the birds whose existence is cut short by flying against telegraph-wires belong to the migratory class, and probably many of these accidents occur during the hours of darkness. Occasionally, however, a non-migratory species is killed in broad daylight. A few summers ago a gamekeeper showed me a female Black Grouse, which he had seen fly against the wires and drop dead. On dissection I found its neck was broken and its breast severely cut and bruised. Some of this mutilation was doubtless caused by its fall to the ground, as it was a heavy, plump bird; but that the force of contact against the wires had been sufficient to cause immediate death is unquestionable. Once in my evening rambles I picked up a Partridge that had met with a similar fate, and it could not have been dead a very long time, as the body was warm when I found it. I often have birds sent me that have been killed in this way, and the great majority of them are picked up by men whose work takes them on the line of railway early in the morning. It is only during the past month of September that two species were thus found and sent to me, *viz.*, a Spotted Crake on the 3rd and a Ring Ouzel on the 28th; both were much cut about the head and neck, and the last-named bird had its breast-bone completely smashed, whilst the skin of the breast had been cut as with a knife, and one of its eyes had also been knocked out. In previous seasons I have had the Wheatear, Nightingale, Corncrake, Jack Snipe, and one or two others killed in like manner, and if I mistake not, all at the time of the spring or autumn migration. But I by no means wish it to be inferred that such accidents occur only at the periods stated; my experience points to them as worthy of notice. Many readers of ‘The Zoologist’ whose experience is much more extended than my own will perhaps give us the benefit of their knowledge upon the subject.—G. B. CORBIN (Ringwood, Hants).

ORNITHOLOGICAL NOTES FROM WEST CUMBERLAND.—In February, 1880, a shepherd told me he saw four Snow Buntings (called by him “flakes”) on Bleng Tongue, a high-lying piece of ground in Gosforth parish; and in December a pair of Peregrines were seen by the same man near his house. In June a pair of Ravens were trapped on Burnmoor; the keeper sent them to me, and I found the larger to be an exceedingly fine hen bird, and the other a well-grown bird of the year; both had been caught by the

foot. The same month a pair of Eider Ducks were killed by a fisherman on the Ravenglass Estuary; I was told that they had got entangled in the fish-garth and were killed with a stick, and that they were a pair; but although I was on the spot the next day to secure them they were already plucked and roasted. On January 13th, 1881, the keeper put up a fine pair of Goosanders on Burnmoor Tarn; he brought down the drake, and fired at the duck, which escaped to Wastwater, only to be shot there next day by a farmer; both were sent to me, and are now in the collection of Mr. J. L. Burns-Lindow. On January 15th I saw a large flock of Geese off Seascale, but too far away for identification. An enormous number of Widgeon frequented the mouth of the Irt last winter; and on January 25th a flock of seven Brent Geese appeared, one of which was shot. On the 26th a young male Goldeneye was killed on the Irt above Santon, being much higher up the river than I have ever known one before; it was a solitary bird. On the 29th four Brent Geese were seen off Seascale, and the next day one was sent to me which I believe was killed on the Irt; these Geese are not often seen here. Between January 23rd and February 2nd great numbers of Shelldrakes arrived. On February 3rd two Brents were seen on the Irt in company with Widgeon; the keeper stalked them, having got a rise, and killed one of the geese with his first barrel, and two Widgeon with his second. On the 8th, during hard frost a farm lad surprised a Scoter in a ditch near Seascale Hall, and killed it with a stone; it was an adult, and fat. On February 15th I noticed five mature Great Black-backed Gulls on the shore at Seascale, and again on the next day; these mature birds are uncommon here, though the young are common enough. On March 22nd I saw a large flock of Black-headed Gulls for the first time this year. On August 23rd we had a violent storm, which wrecked two vessels on our shore, and on going down to see these, I picked up a Manx Shearwater still alive; the web between the toes of the right foot was distended with fluid so as to form a lump as large as a small walnut; I punctured this and let the fluid escape, which evidently relieved the poor thing, but it died next day in spite of care. On August 27th some one sent me by post a Sparrow very curiously mottled with white.—CHARLES A. PARKER (Gosforth, Carnforth).

ORNITHOLOGICAL NOTES FROM DUBLIN.—A fine specimen of the Osprey, *Pandion haliaëtus*, fell to the gun of Mr. W. Williams, jun., at Clontarf. The bird had been observed inland at Dundrum, five miles south of the city, towards the end of October, flying about mobbed by Rooks, and a few days afterwards it made its appearance at Clontarf, on the shore of the bay, about a mile and a half from the Dublin Post-Office in a northerly direction. Mr. Williams, who was out shooting early in the morning, noticed it slowly hovering over a stream intersecting the sands, looking for fish; occasionally

it came to rest on the top of one of the telegraph-poles surmounting the railway embankment that here crosses the estuary. Whilst gaining a footing there the feathers of the head were erected, looking like one of the Short-eared Owls, and it emitted a loud clucking cry, swaying its body to and fro, the wings fully expanded. After a most exciting chase, during which another person fired at and missed it, Mr. Williams, by crawling amongst the grass and weeds, succeeded in bringing it down by a long shot just as a train came rapidly along. Though severely wounded it made a desperate fight, striking out right and left with its strong talons and beak, and screaming fiercely. It was in immature plumage, and the extended wings measured five feet three inches from tip to tip. On September 7th three Curlew Sandpipers, *Tringa subarquata*, were shot at Clontarf, and a week later twenty-two were obtained out of a large flock near the same place. On September 24th, at Malahide estuary, near Dublin, three Little Stints, *Tringa minuta*, were obtained, the only ones seen. The following birds have also been received by Messrs. Williams & Son for preservation:—Two Great Northern Divers, *Colymbus glacialis*, in full adult breeding plumage, one killed by a rifle-bullet at the mouth of Waterford Harbour, the other killed at Lough Foyle. A cream-coloured Lapwing; that is, cream-coloured with the exception of a few blotches of faded brown across the breast and tips of the wings; even the delicate crest is almost quite white. A curious cream-coloured variety of the Heron, *Ardea cinerea*, similarly mottled with pale brown; and a cream-coloured Swallow.—A. WILLIAMS (7, Grantham Street, Dublin).

[If these varieties had been secured alive and kept in confinement, they would in all probability have assumed their normal colours on moulting. Such at least has been the case with a cream-coloured Lapwing which has been for some time in the Western Aviary at the Zoological Gardens, Regent's Park; and we have known the same thing to occur in the case of a pied Blackbird.—ED.]

ORNITHOLOGICAL NOTES FROM ALDEBURGH.—On July 27th I noticed a good many birds about the meres. Herons, Terns, Gulls, Ringed Plovers, and Dunlins were plentiful, and I saw a lot of Teal and a single Snipe. On July 30th an old Cormorant crossed over from the meres to the sea, and passed along shore towards the river within a hundred yards of me. The following day I saw a great quantity of Ducks in the further mere—not less than fifty couples. Very few were obtained through the first week of the shooting season, as after the first shot or two they all returned to the decoys. On August 9th I heard and saw a single Greenshank at Thorpe. A week later I walked down to the Lighthouses. A good many Terns were still to be seen about their breeding-place on the shingle between the two Lighthouses, and from their actions some appeared to have young ones still



unable to fly. Although a vast number of eggs are taken every year the number of neither species (the Common and Lesser) seem to be at all diminished. I shot an immature Turnstone close to the Low Lighthouse. Walking along the river-wall between Aldeburgh and Iken on August 20th, I met with a single Black Tern hawking for insects over the ditches. This Tern is by no means common on the Suffolk coast. A day or two afterwards I killed an adult Lesser Black-backed Gull in the most perfect summer plumage.—JULIAN TUCK (Bucknall, Stoke-on-Trent).

GLOSSY IBIS IN NORFOLK.—Mr. George Cresswell informs me that a male bird of this species, now in his possession, was killed on the Wolferton Marshes, near Lynn, on September 16th. Others were seen at the same time, and he believes a second one killed, but he has not at present been able to ascertain what has become of it. Messrs. Sheppard and Whitear, in their 'Catalogue of Norfolk and Suffolk Birds,' speak of one of these birds as having been killed near Lynn in the winter of 1818. This bird is referred to in the "Calendar" kept by the Rev. W. Whitear, extracts from which have been recently published by the Norfolk and Norwich Naturalists' Society ('Transactions,' vol. iii. pp. 231—262). He says under date February 9th, 1820:—"I also saw at the same time [at Hunt's] a specimen of the Glossy Ibis, which I was told was shot in the winter of 1818, on the marshes on the western coast of Norfolk, near Lynn." But an earlier reference to a Glossy Ibis occurs under date of October 19th, 1819, as follows:—"He [Hunt] also says that an Ibis was killed *this year* in Norfolk." At first sight it appears as though two distinct birds were recorded, but I think there can be no doubt that the latter entry is an amplification and correction of the earlier one, and that both refer to the same bird.—THOMAS SOUTHWELL (Norwich).

[We have heard of two others obtained this autumn, one in Lincolnshire, the other in Hampshire, but no particulars of their capture are yet to hand.—ED.]

BUFFON'S SKUA IN DUMFRIESSHIRE.—A fine adult male of this species was shot in Torthorwald parish, at a place some six or seven miles from the shore, on the 12th June last. I had an opportunity of seeing the bird shortly afterwards, while it was in Mr. Hastings' possession for preservation. Its plumage was perfect, and the throat, neck, and under parts were suffused with crocus-yellow. A friend residing at Tuxford, in Nottinghamshire, writes to me that a Buffon's Skua was captured at Westwood, near that place, on June 8th, and kept alive for about three weeks. It became very tame, and having one wing cut was allowed to walk about. It disappeared one morning, and its owner, Mr. John M. Dufty, inserted a paragraph in a local newspaper, containing a description of the bird, and a request for its return if it could be caught alive. Strange to say, it was

captured at a place fifteen miles distant, six days afterwards, and returned to Mr. Dufty; but the journey had been too much for it, as it died immediately afterwards.—R. SERVICE (Maxwelltown, Dumfries, N. B.).

LATE STAY OF SWIFTS IN NORTH OXON.—Swifts were with us for a very long period this season. They arrived early (May 2nd) and stayed unusually late. They generally depart by the middle of August, but this year I noticed them in small numbers and screaming loudly on the 22nd—about a dozen on the 25th, a very few on the 27th, and two on the 30th. No more were seen till September 11th, when we saw a single bird. There was a very large congregation of Swallows and Martins on the house and trees at Bodicote on the 17th September. They appeared to be all young birds, and left during the day; but the old birds have not entirely disappeared yet (October 2nd). They are often seen till the middle of that month.—OLIVER V. APLIN (Bodicote, Oxon).

REPORTED OCCURRENCE OF THE ROSEATE TERN ON THE FARNE ISLES.—I very much doubt the statement that "several pairs of Roseate Terns bred on the Farne Islands this year," as mentioned by Mr. Cordeaux's correspondent (p. 423), and feel quite sure that the light-keepers are mistaken in the Roseate Tern. I had abundant evidence of this last autumn, and could give several instances in proof of what I assert, *viz.*, that the boatmen and light-keepers mistake the Sandwich Tern, when more than usually pink on the breast, for the Roseate.—T. H. NELSON (Redcar).

EUROPEAN BIRDS OBSERVED IN NORTH AMERICA.—Another occurrence of the Tropic-bird in Europe may be mentioned besides the three noticed by Mr. Freke (p. 365), namely, a specimen picked up dead many years ago in Worcestershire (*vide* 'Zoologist,' 1871, p. 2666), now in the collection of Mr. William Heaton, of Reigate, where I had the pleasure of inspecting it some time ago. The feathers of the tail proper and wings are a trifle worn, otherwise it is a very fine bird. There is also an occurrence of the Cape Pigeon, *Daption capensis*, in this country, recorded in 'The Zoologist' for 1869, p. 1921.—J. H. GURNEY, Jun. (Northrepps, Norwich).

OSPREY IN WEST CUMBERLAND.—About the 10th of last September a large bird was seen sitting on the Rectory chimney at Gosforth. In the course of the following week a large hawk with a whitish head was seen chased by a Kestrel in Lingbank plantation. The next day it was seen flying low, following the course of the River Bleng. Finally, on the 23rd, it was seen by the miller to come through the trees by the river and perch upon the roof of his house, and commence to preen his feathers. He thought it was an Owl till it turned its head, and then, seeing it was a strange bird, he ran into the house for his son, who came out with his gun and knocked the poor bird over. The body was carried about the village and caused great wonder and discussion till it was finally brought to me. I found it to

be a fine male Osprey, in good plumage, measuring twenty-three inches in length and five feet two inches across the wings. It was extremely thin and poor, the stomach being absolutely empty.—CHARLES A. PARKER (Gosforth, Cumberland).

WHITE PARTRIDGES IN SURREY.—This season there have been on Mr. Lewis Loyd's property, Spring Park, near Shirley, Croydon, no less than eleven pure white Partridges—five in one covey, three, two, and one in others. The keeper noticed them when quite young; the one died when young, but the five, three, and two were all reared; of these nine have been shot. I carefully examined one Mr. Loyd kindly gave me the morning after it was shot, and found the legs of a dirty straw-colour, and the eyes a pale grey-blue, with no distinct pupil, so no doubt in life they would have been pink, and the bird a true albino. Thorpe, of South Croydon, who is preserving mine, has also two of the others for preservation, and these are certainly older than the one I have. Mr. Loyd's keeper tells me he has never before seen any white birds on the estate, and can form no idea why they should have occurred. Can any reason be given for this singular freak of nature? If all had been in one covey it would be supposed that ill health or disease had something to do with it, but occurring in five covies it seems unlikely that this was the cause.—PHILIP CROWLEY (Waddon House, Croydon).

HOOPOE NEAR BRIGHTON.—On the 27th August last, whilst at Portslade, near Brighton, I saw a Hoopoe on the lawn by the side of the house I was visiting. It flew away and did not return again that day, but returned the next and remained until the 30th, when, hearing that several people with guns were on the look-out for it, I shot it. It proved to be a female, and was in very fair plumage.—HERBERT LANGTON (Brighton).

CHOUGH IN OXFORDSHIRE.—An examination of a specimen in the Oxford Museum and a reference to the plate in Mr. Dresser's 'Birds of Europe' leave me very little doubt that the Chough I mentioned last month (p. 422) is the Alpine bird, *Pyrrhocorax alpinus*, Koch, as suggested in your editorial note. With regard to its having escaped from captivity, I may say that the plumage was clean and not rubbed in the least, nor did the food found in the stomach point to its having been caged at any very recent period. Possibly though it was an escaped bird, and had been at liberty long enough to lose its marks of confinement.—OLIVER V. APLIN (Bodicote, Oxon).

BLUE-THROATED WARBLER AT DARTFORD.—On September 4th I shot a specimen of the Blue-throated Warbler in the marshes near Dartford. I take it to be the Scandinavian form, as it has a decided rufous spot above the blue breast, the same colour as below the blue band.—W. DAVIES (Hythe Street, Dartford).

REDWING NESTING IN PERTHSHIRE.—The occasions on which this bird is known to have bred in England seem to be very few, and perhaps the readers of 'The Zoologist' may be interested in hearing that there was undoubtedly a nest in the Blairgowrie district of Perthshire this summer. It was probably in a large fir wood on a hill of some 2600 feet in elevation, forming part of my father's highland shooting, for though unable to find the actual nest I observed the birds about for some time, and on the 25th August shot a young Redwing, in good plumage, which is now being preserved. I have also been much pleased to notice this year how much the Capercaillies are increasing in numbers in many Scotch woods. Many of them fell to our guns in the ordinary course of shooting, and on one occasion, had we so wished it, we could have shot twenty in half an hour's walk through a neighbouring forest. They are grand birds, and well deserve protection and indulgence at the hands of owners of moors and forests, in spite of their fondness for young spruce tops.—EDWIN LESTER ARNOLD (15, Haroldstone Road, Cromwell Road, S.W.)

UNCOMMON SEA BIRDS AT FLAMBOROUGH.—On the 20th September I received from Mr. Bailey, of Flamborough, a Little Gull (bird of the year), two Richardson's Skuas (one adult with white breast, one a dark immature bird), and a Great Shearwater.—JULIAN TUCK (Bucknall, Stoke-on-Trent).

GREAT CRESTED GREBE IN WARWICKSHIRE.—About the middle of September a Great Crested Grebe, *Podiceps cristatus*, Linn., was picked up in a field about 200 yards from the brook at Priors Marston, Warwickshire. It proved to be a male bird in perhaps its second year. Although it was unable to fly, I could not find that it had suffered any injury; probably it was exhausted.—OLIVER V. APLIN (Bodicote, Oxon).

SABINE'S GULL NEAR DUBLIN.—Mr. Glennon, of Lower Merrion Street, has shown me an immature example of this rare gull, which he shot on September 24th close to the Pigeon House Fort at the entrance of the River Liffey. It is a male bird in the first year's plumage, and weighed six ounces and a half. I saw it on the 26th, while quite freshly killed. In the stomach were found only the remains of a few bivalve shells. This is, I believe, the ninth Irish specimen.—A. G. MORE (Museum of Science and Art, Dublin).

HONEY BUZZARD IN HERTFORDSHIRE.—On September 23rd, while shooting at Little Hadham, near Bishop's Stortford, Hertfordshire, a Honey Buzzard, mobbed by some half-a-dozen Rooks, flew over me, and I was fortunate enough to secure it. It was a female in very dark plumage, and measured fifty-three inches and a half from tip to tip of wings.—HERBERT LANGTON (Brighton).

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